

IMPACT OF DEPLOYMENT ON THE HEALTH OF SERVICE MEMBERS AND THEIR FAMILIES – WHY CLINICIANS SHOULD ASK

**Clinician Outreach and Community
Activity (COCA)**

Conference Call

September 21, 2010

Objectives

At the conclusion of this hour, each participant should be able to:

- ❑ Describe at least three ways in which impending deployment may impact a patient's health.
- ❑ Describe at least three ways in which impending deployment may impact a patient's family's health
- ❑ Describe at least three ways in which a past deployment may impact a patient's health
- ❑ Describe at least three ways in which a past deployment may impact the health of patient's family's health
- ❑ State at least two strategies clinicians may use that incorporate the assessment of deployment-related health issues

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TODAY'S PRESENTERS

Marc A. Safran, MD, MPA (Moderator)

CAPT, U.S. Public Health Service

Chair, CDC Mental Health Work Group

Centers for Disease Control and Prevention

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Executive Director, Center for Deployment Psychology

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Associate Director of Science, Division of Injury Response

Centers for Disease Control and Prevention

Ruth Perou, PhD

Child Development Studies Team Leader

Centers for Disease Control and Prevention

Agenda

Introduction – Why Clinicians Should Ask - Dr. Marc Safran (moderator)

Behavioral Health Issues Related to Deployment - Dr. David Riggs

Traumatic Brain Injury – Dr. Vikas Kapil

Family and Child Issues - Dr. Ruth Perou

Discussion, Questions, and Answers – Presenters and audience

Impact of Deployment on the Health of Service Members and Their Families

Why Clinicians Should Ask

Marc Safran, MD, MPA

*CAPT, U.S. Public Health Service
Chair, CDC Mental Health Work Group*



Clinician Outreach Communication Activity, September 21, 2010

Introduction

Why clinicians should ask if a patient or family member has been or may be deployed.

Examples of How Deployment may impact Health

- ❑ Behavioral health issues
- ❑ Traumatic brain injury
- ❑ Other injuries
- ❑ Infectious diseases
- ❑ Toxic exposures
- ❑ Nutritional changes
- ❑ Medication side effects
- ❑ Other general medical issues
- ❑ Family and child Issues

If the clinician doesn't ask...

A lot may be missed.



The Impact of Deployment on Service Members and Their Family Members

David Riggs, Ph.D.
Executive Director
Center for Deployment Psychology

The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention



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The Impact of Deployment

**Approximately
4 Million
Parents have had a child
Deployed**

**Approximately
2 Million
People with a
Sibling
Who has Deployed**

**Approximately
2 Million
Service Members
Deployed**

**Approximately
1 Million
Spouses Coping with
Deployment**

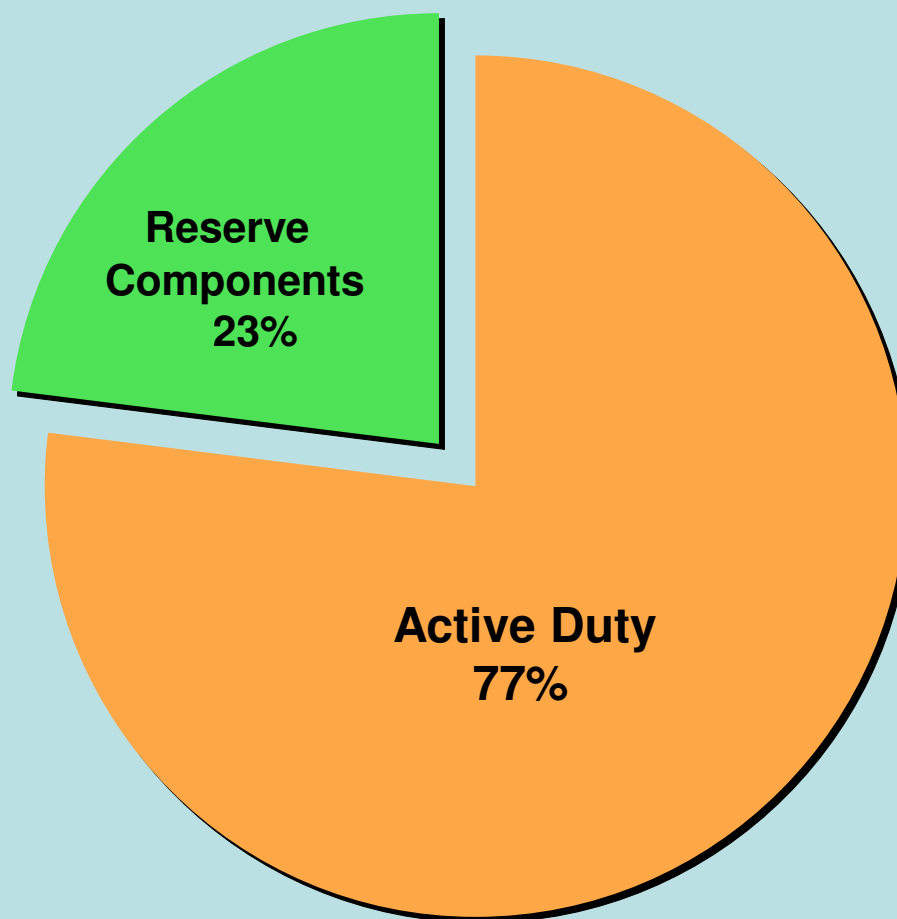
**Approximately
2 Million
Children have had
a Parent Deployed**



Total Deployed to OIF & OEF

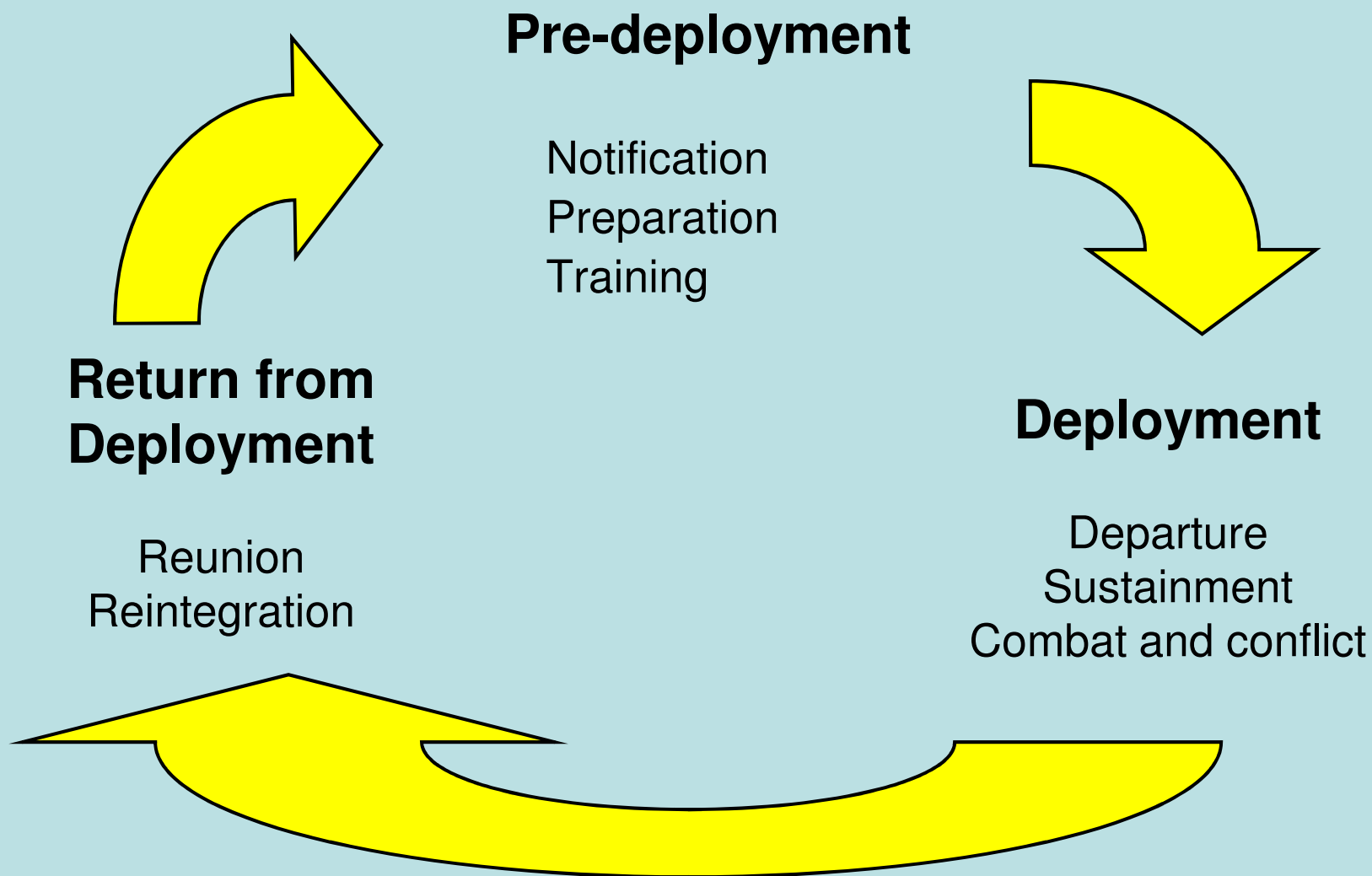
1,991,578 as of 31 AUG 2009

Active Duty vs Reserve Components





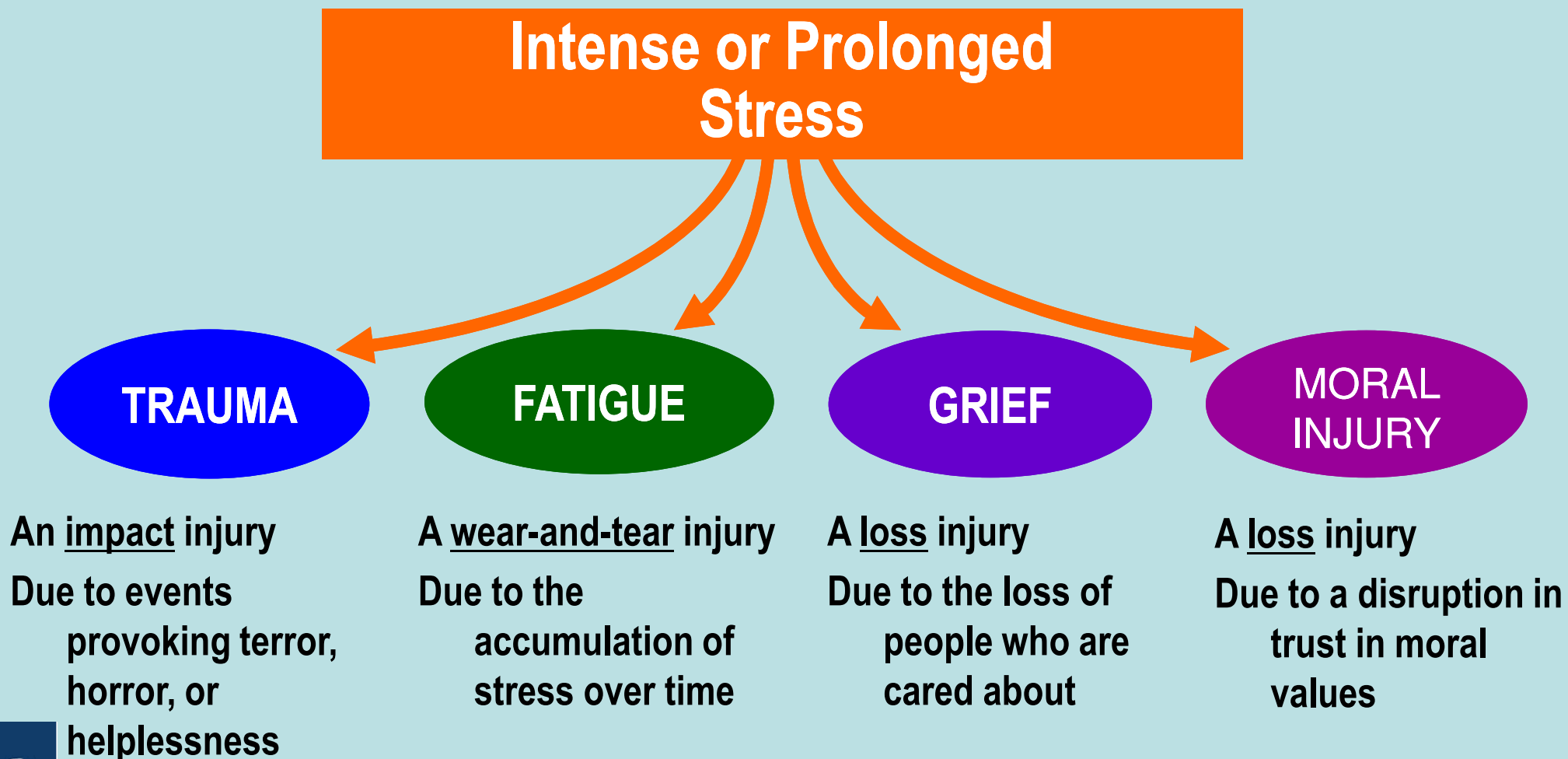
Pre-Deployment





Stress Injury Mechanisms

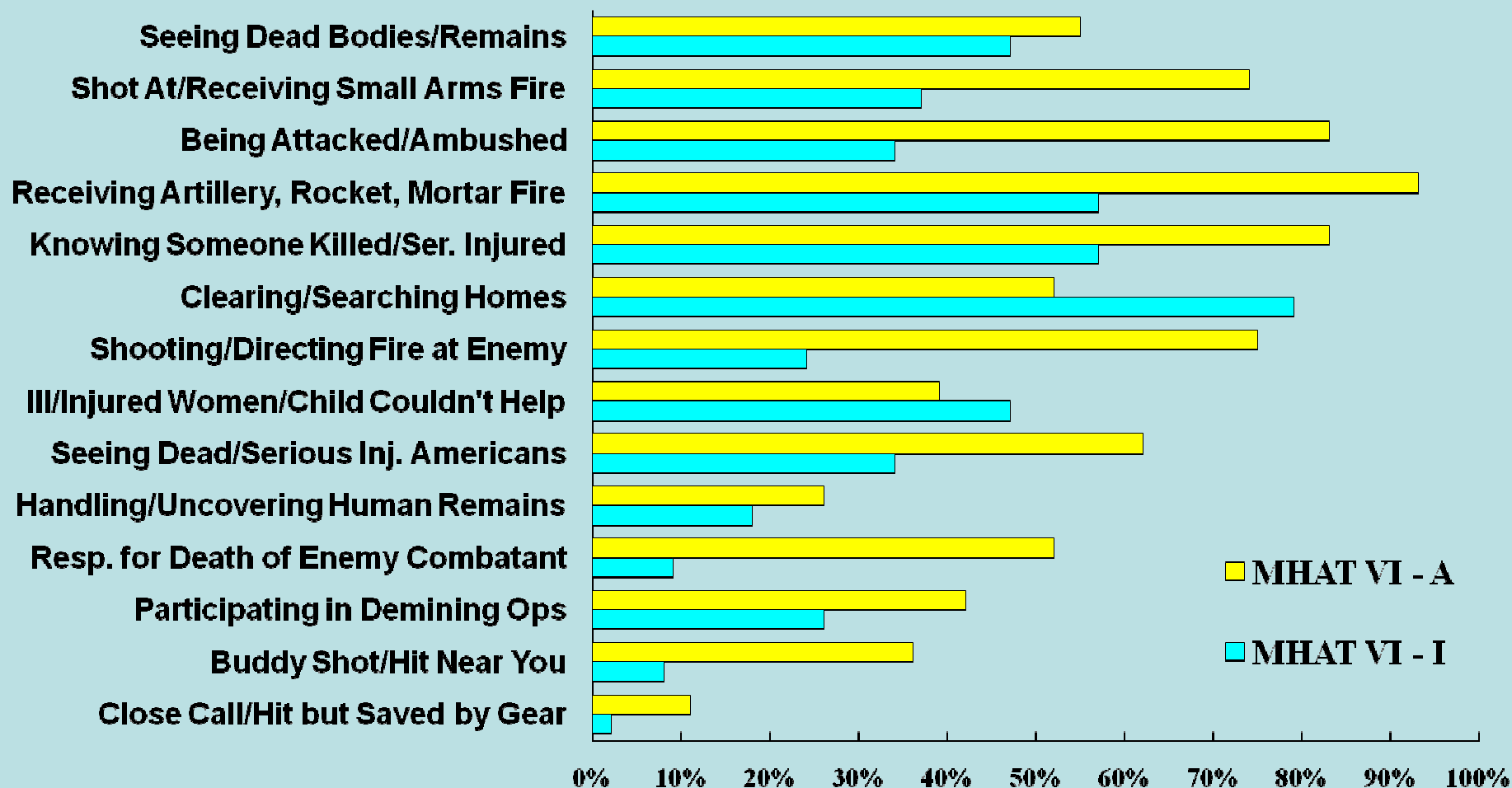
(Briefing by Capt Koffman, 2008)





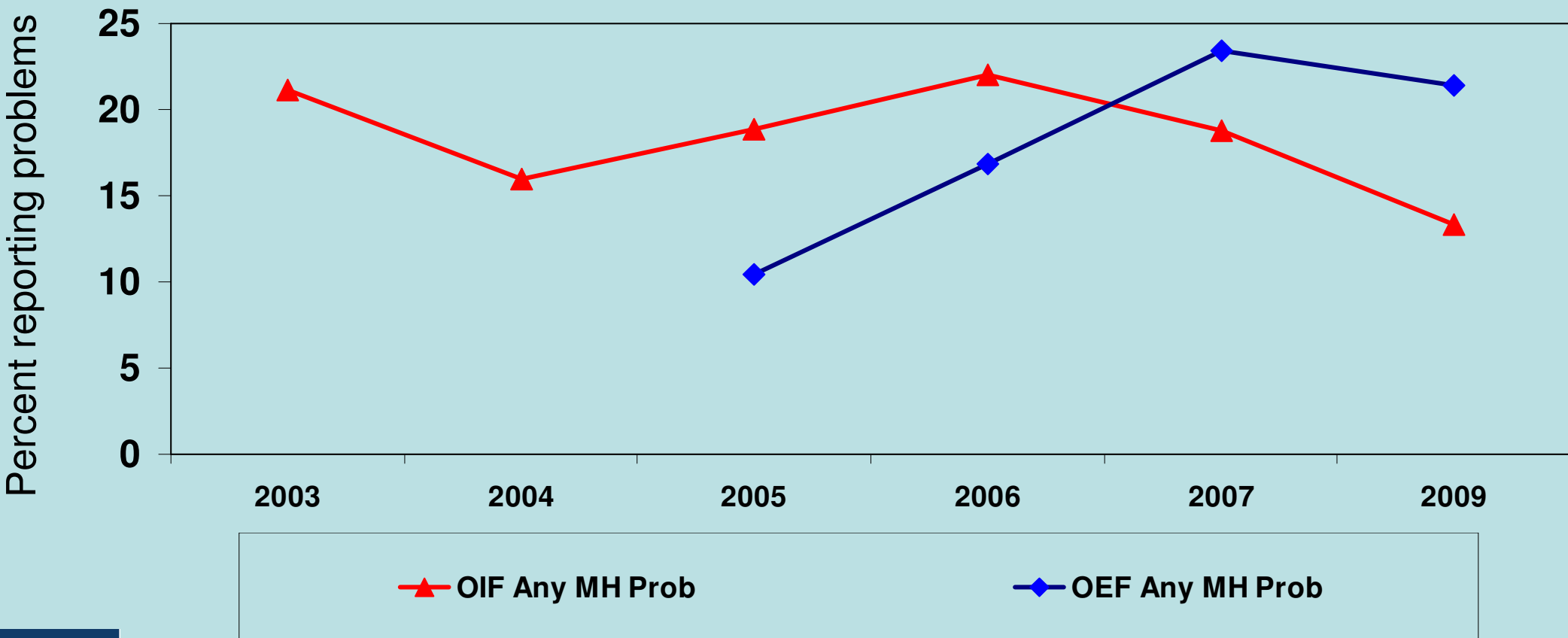
Combat Exposure in Iraq and Afghanistan

Reports from MHAT-VI





Behavioral Health Data from MHAT-VI Report



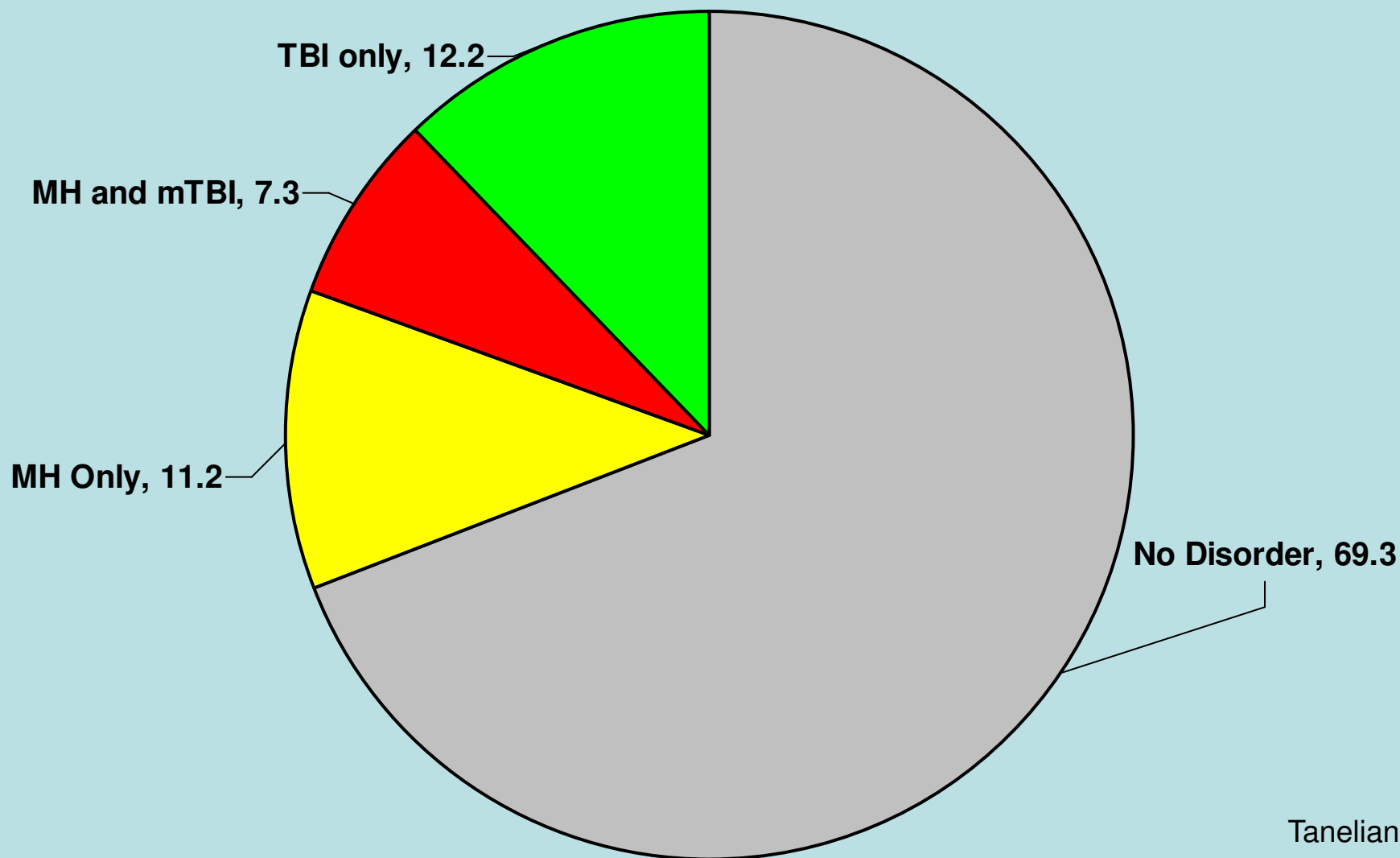


Reintegration

- **5 critical challenges / tasks service member needs to master**
 1. Overcome alienation
 2. Move from simplicity to complexity
 3. Replace war with another form of high
 4. Move beyond war and find meaning in life
 5. Come to peace w/self, God, and others

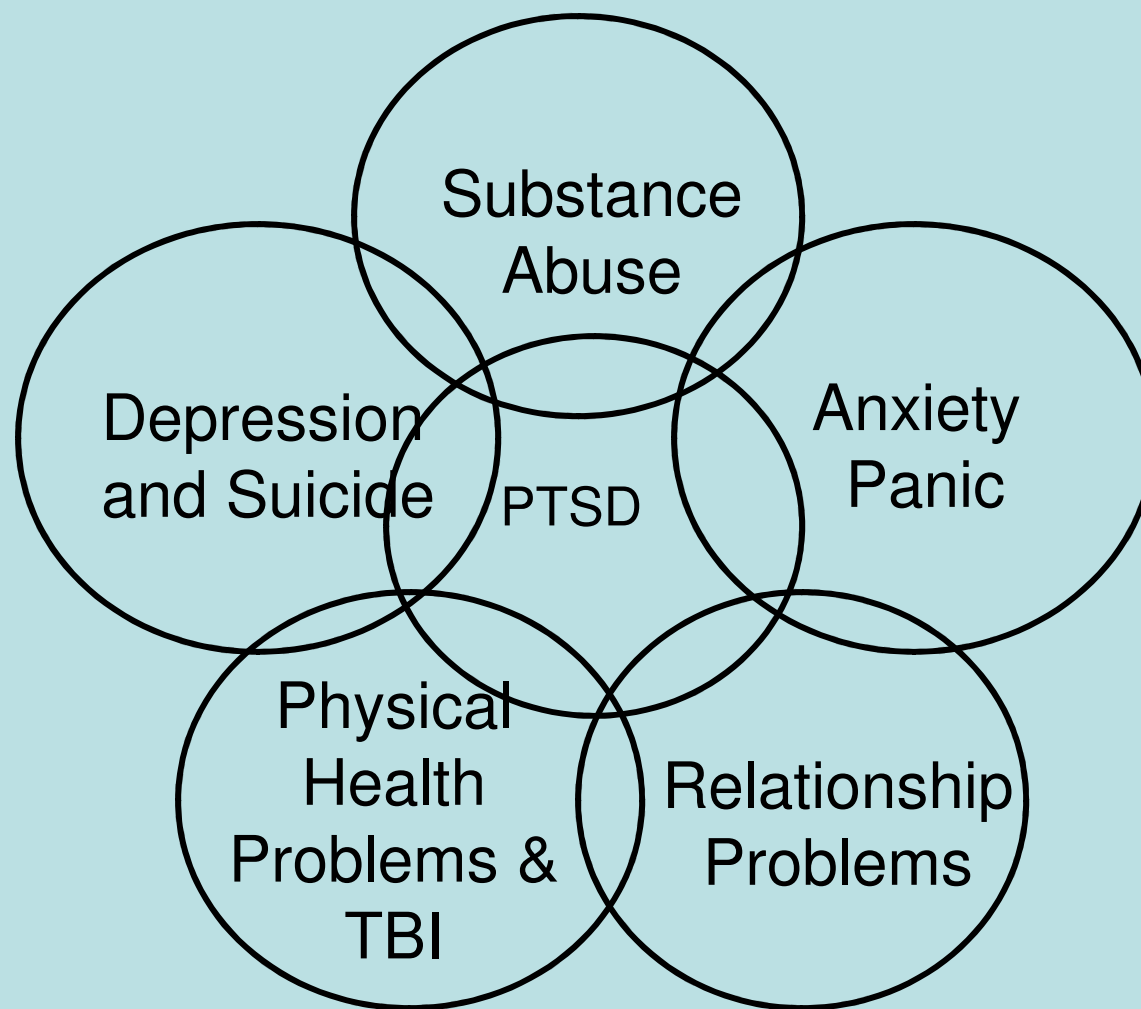


Emotional Distress Reported from RAND Report



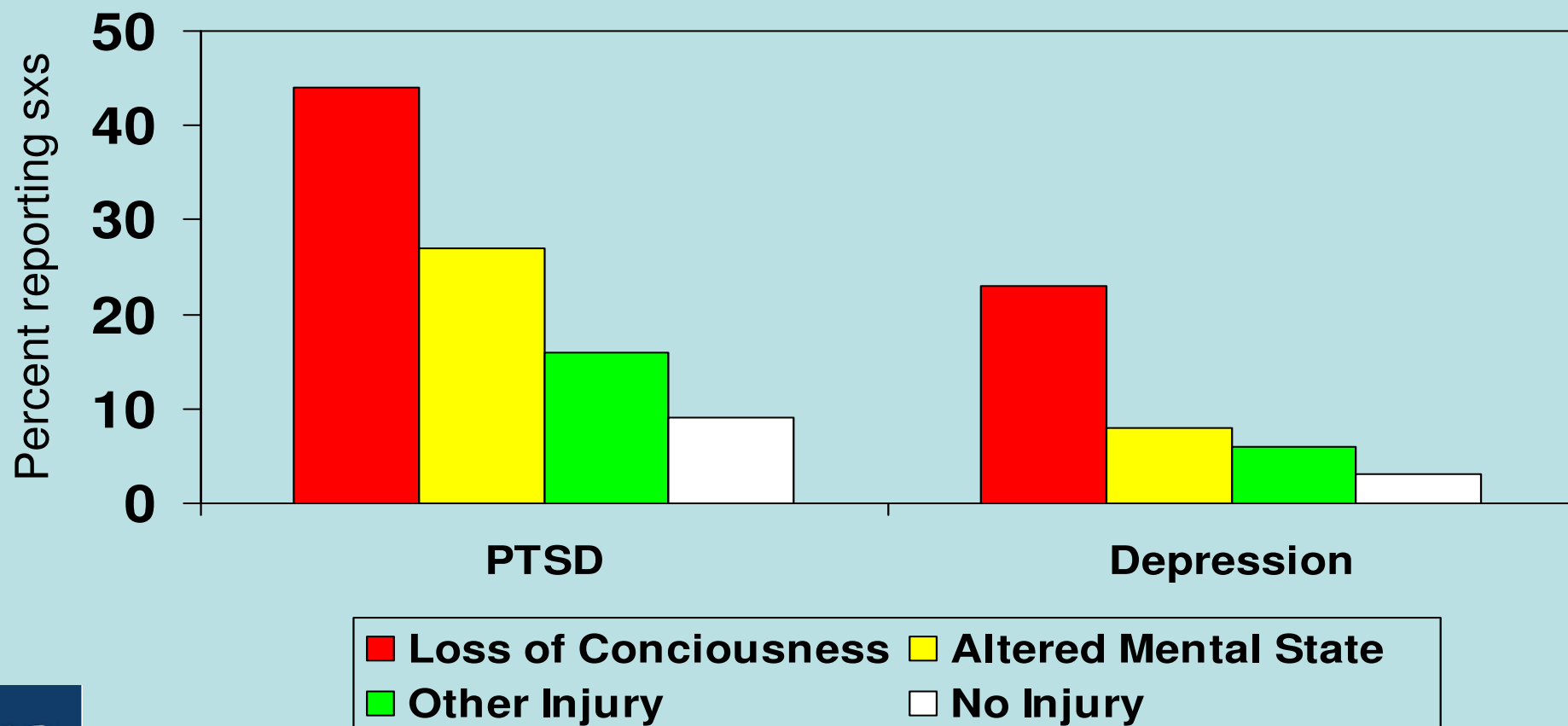


Co-Occurring Problems





PTSD and TBI





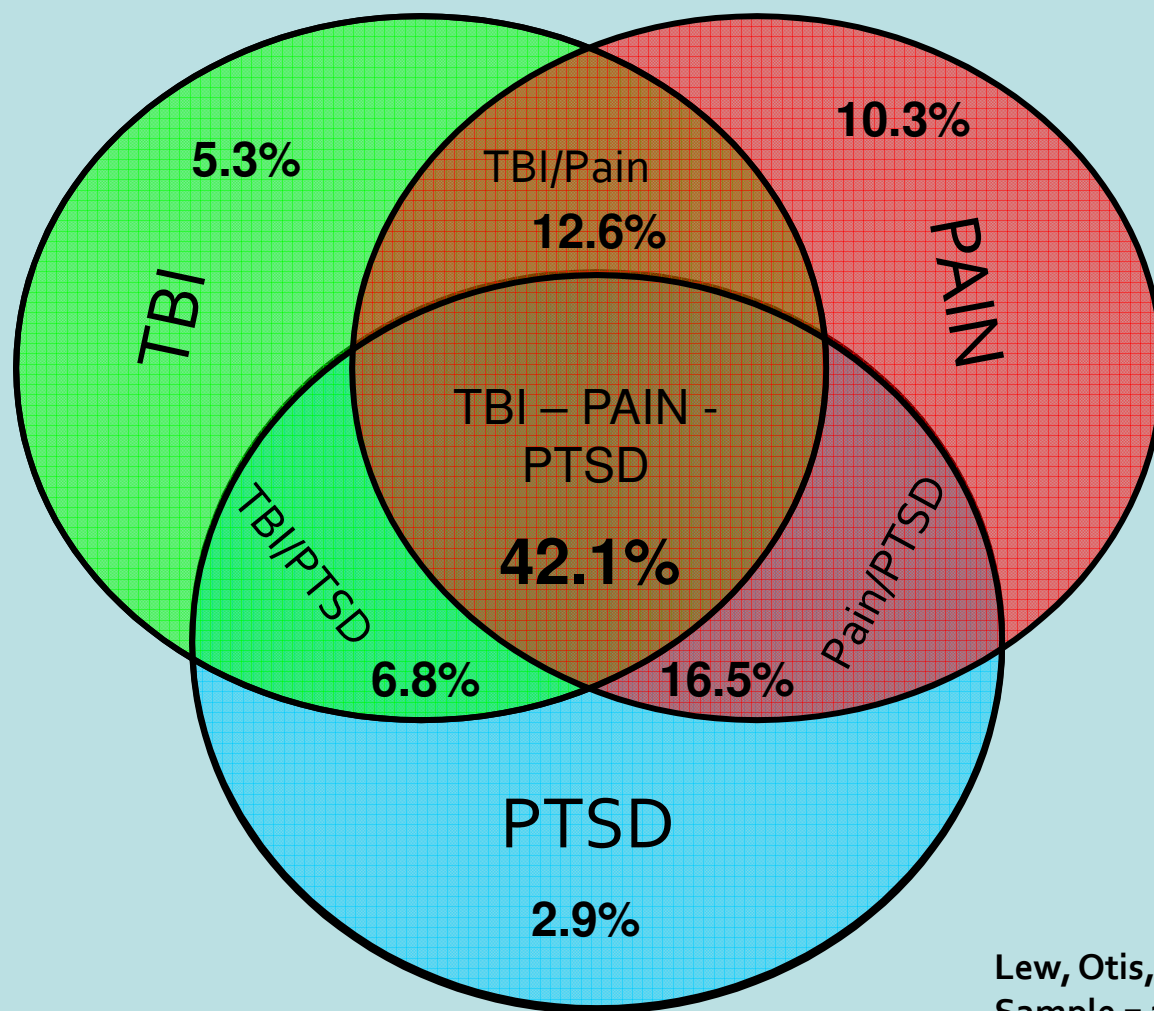
There is substantial symptom overlap in mTBI, pain, PTSD, SUD, depression



PCS Symptoms*	Mild TBI	PTSD	Chronic Pain	SUD	Depression
Memory impairment	√	√	√	√	√
Concentration problems	√	√	√	√	√
Irritability	√	√	√	√	√
Insomnia/Sleep Problems	√	√	√	√	√
Fatigue	√	√	√	√	√
Headache	√	?	√	√	-
Dizziness	√	-	√	?	-
Intolerance of stress, emotion	√	√	√	√	√
Affective disturbance	√	√	√	√	√
Personality change	√	√	√	√	√
Apathy	√	√	√	√	√
Hypervigilance	-	√	-	?	-
Nightmares	-	√	-	-	?
Intrusive memories	-	√	-	-	-
Sensitivity to light or noise	√	-	?	?	-
Nausea or vomiting	√	-	?	?	-



Post-Deployment Disorders



Lew, Otis, Tun, Kerns, Clark, & Cifu, 2009
Sample = 340 OEF/OIF outpatients at
Boston VA



Primary Care in the Military

It's where Soldiers get their care

- Mean primary care use is 3.4 visits per year
- 88-94% have one or more visits per year
- Opportunity to...
 - Reduce stigma
 - Reduce barriers & unmet needs
 - Intervene early

Overview of Traumatic Brain Injury

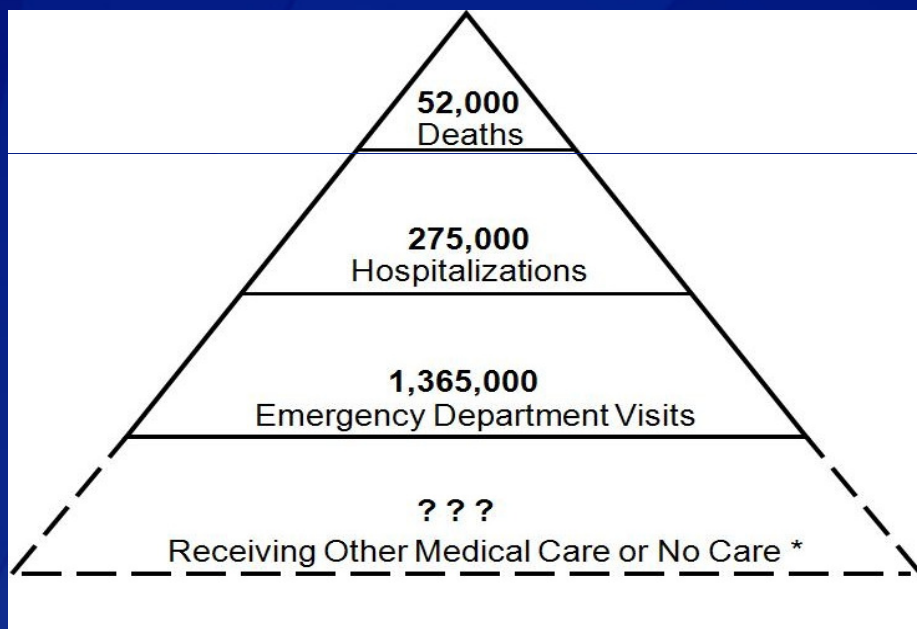
Vikas Kapil, DO, MPH, FACOEM
Associate Director for Science
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Centers for Disease Control and Prevention

Traumatic Brain Injury

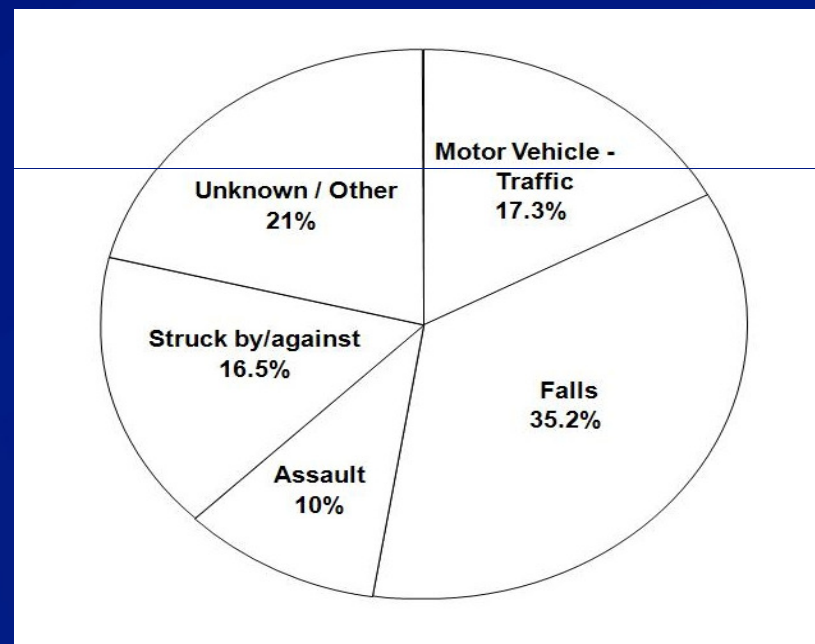
- A TBI is a bump, blow or jolt to the head or a penetrating head injury that disrupts the normal brain function
- Does NOT require direct impact to the head
- Most cases recover fully without treatment however some may have longer lasting sequelae

TBI in the United States

- **Approx. 1.7 million TBIs annually**



- **Causes of TBI**



CDC Report (2010): Traumatic Brain Injury in the United States, 2002-2006

Some Signs and Symptoms of TBI

- **Headache**
- **Nausea, vomiting**
- **Balance complaints**
- **Vision disturbance**
- **Memory complaints**
- **Irritability**
- **Difficulty concentrating**
- **Sleep disturbance**

TBI in the Military

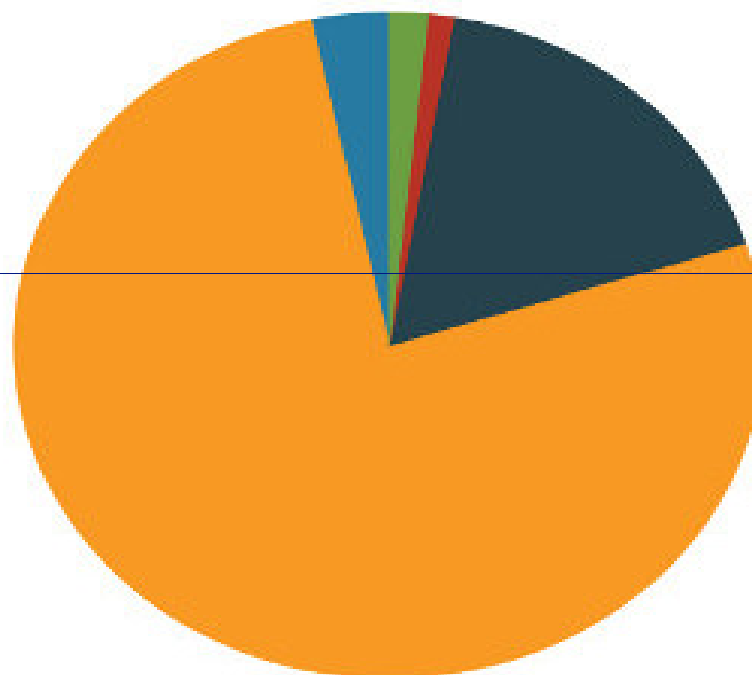
- TBI has been called the “signature injury” of the current conflicts in Iraq and Afghanistan
- Since 2001, approximately 1.6 million military personnel have been deployed to OIF and OEF

Confirmed TBI among Military Members

2000-10

Penetrating	3,175
Severe	1,891
Moderate	30,893
Mild	137,328
Not Classifiable	5,589

TOTAL - All Severity 178,876



Source: Defense Medical Surveillance System (DMSS) and Theater Medical Data Store (TMDS)/ Armed Forces Health Surveillance Center (AFHSC)

Important Causes of TBI in the US Military

- **Blast injury (primary, secondary or tertiary)**
- **Other penetrating head injury**
- **Falls**
- **Motor vehicle crashes**
- **Assaults**

Source: DVBIC.ORG/TBI

Challenges in Management of TBI Among Military Personnel

- **Accuracy of diagnosis (overlapping symptoms)**
- **Remote history of injury, cognitive impairment**
- **Desire to return to active duty**
- **Risk of repetitive mTBI or recurrent impact while still symptomatic**

Key Summary Points in the Care of Patients

- **Ask patients about history of military service and potential TBI (including possible primary blast injury)**
- **Be alert for overlapping and sometimes long duration of varying s/s which may be confused with a variety of other conditions**
- **Seek appropriate imaging, specialty consultation, neuropsychological assessment etc. if TBI and/or sequelae suspected**

Thank You!

Dr. Vikas Kapil
vck3@cdc.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

National Center for Injury Prevention and Control
Division of Injury Response



Impact of Deployment on the Health of Service Members and Their Families – Why Clinicians Should Ask: Family and Child Issues

Ruth Perou, PhD

Child Development Studies Team Leader

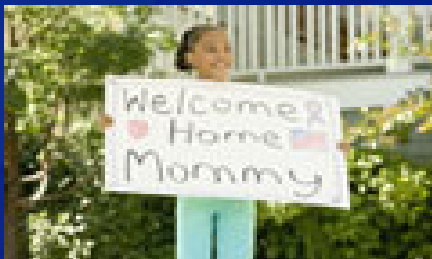
Clinician Outreach Communication Activity (COCA) Teleconference
Centers for Disease Control and Prevention
September 21, 2010, 1:00 PM to 2:00 PM EST

National Center on Birth Defects and Developmental Disabilities
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“If you want to honor a service member, the best way to accomplish this is to honor and support their legacy, their children.”

COL Elisabeth Stafford, MD, FAAP, FSAM, Career-long
Military Child Advocate, Pediatrician, and Adolescent Medicine Specialist



Military Families Demographics

- Almost 2 million children living in military families
- 43% of Active Duty Military Families with children:
 - 35.1% - Married to civilian
 - 5.2% - Single
 - 2.9% - Dual military with children
- Largest percent of children are between birth and five years of age (41.0%)
 - 31.4% - 6-11 yrs
 - 23.8% - 12-18 yrs
 - 3.8% - 19-23 yrs

Impact of Deployment on Families

- Deployed primary caretaker is most stressful event for children
- Strain on parent left behind
- Exposure to life-changing stressors challenging ability to reintegrate on return
- Disruptive to civilian life
- Family functioning is affected by combat exposure
- Rates of child neglect (twofold increase) and maltreatment are elevated especially for young families
- Wives of deployed soldiers have higher rates of mental health issues

Impact of Deployments on Children's Health & Well-being

- Emotional and behavioral difficulties
 - Sadness, Anxiety, Anger, Symptoms consistent with depression, Loneliness, Numbness, Feeling overwhelmed, poor coping
- School performance/academic problems
- Peer-related difficulties
- Disrespecting parents and authority figures
- Sleep disturbances
- Health complaints
 - higher heart rates and systolic blood pressures

Response of Children to Stress and Separation

- **Infants (Birth - 12 months)** may respond to disruptions with decreased appetite, weight loss, irritability and/or apathy.
- **Toddlers (one-three yrs.)** may become sullen, tearful, throw temper tantrums or develop sleep problems.
- **Preschoolers (three-six yrs.)** their behavior may regress in areas such as toilet training, sleep, separation fears, physical complaints, or thumb sucking.
- **School age children (6-12 yrs.)** may show irritable behavior, aggression or whininess. And may become more regressed and fearful about parents' safety
- **Teenagers (13-18 yrs.)** may be rebellious, irritable or more challenging of authority. Parents need to be alert to high-risk behaviors such as problems with the law, sexual acting out, and drug/alcohol abuse.

Transitions: Protective Factors

- Resilience plays major factor in deployment
 - Most families “rise to the occasion”
 - Family readiness is a key factor
 - Feeling connected and supported
- Family preparedness for deployment
- Mental health status of at-home parent
- Active Coping Style
 - Accept military life style
 - Are optimistic and self reliant
 - Adopt to flexible gender roles

Transitions: Risk Factors

- History of rigid coping styles
- Family dysfunction
- Young families (especially first military separation)
- Families recently moved to new duty station
- Foreign born spouse
- Families with young children
- Families without unit affiliation
- Pregnancy
- Dual career/single parents

What can you do?

- Develop awareness of the presence of military children and families within your communities and practices
- Consider screening children at check-in to see if they are members of a military family
- Develop knowledge about the culture of military
 - Engage youth and families in a way that will allow them to share their true concerns

What can you do?

- Child health issues may be the entry point for Family health
 - Consider screening the non-deployed parent for psychosocial stressors and functional impairment
 - Consider discussing Service-member health issues
- Monitor mental health pre, during, and post deployment
- Discuss resources with the family

Resources: Overarching

- U. S. Department of Veterans Affairs
 - Mental Health home page <http://www.mentalhealth.va.gov/Services.asp>
 - National Center for PTSD <http://www.ptsd.va.gov>
 - Vet Centers <http://www2.va.gov/directory/guide/vetcenter.asp>
- U.S. Department of Defense Military Health System Mental Health home page http://www.health.mil/Themes/Mental_Health.aspx
- Substance Abuse and Mental Health Services Administration Veterans home page <http://www.samhsa.gov/vets>
- Defense Centers of Excellence For Psychological Health and Traumatic Brain Injury (DCoE) <http://www.dcoe.health.mil/Default.aspx>
- Real Warriors Campaign <http://www.realwarriors.net>
- Wounded Warrior Project <https://www.woundedwarriorproject.org/content/view/415/876/>
- AAP Section on Uniformed Services (Deployment) <http://www.aap.org/sections/uniformedservices/deployment/index.html>

Additional Resources

- U.S. Army Medical Department Resilience Training
<https://www.resilience.army.mil/>
- Department Of Defense Deployment Health Clinical Center
http://www.pdhealth.mil/clinicians/scp_trackII.asp
- Understanding Military Culture When Treating PTSD, information for clinicians
http://www.ptsd.va.gov/professional/ptsd101/flash-files/Military_Culture/player.html
- Military OneSource www.militaryonesource.com
- Iraq and Afghanistan Veterans of America <http://iava.org>
- Vets4Vets <http://www.vets4vets.us>
- Vietnam Veterans of America <http://vva.org>
- Veterans Suicide Prevention Hotline 1-800-273-TALK, Veterans Press 1

Resources: Family and Children

- National Military Family Association <http://www.militaryfamily.org>
- Blue Star Military Families <http://www.bluestarfam.org>
- Families Overcoming Under Stress <http://www.focusproject.org>
- Military Wives Network <http://www.MilitaryWives.com>
- Tragedy Assistance Program for Survivors, Inc. <http://www.taps.org>
- Our Military Families, an organization for children of National Guard and Military Reserve families <http://www.ourmilitarykids.org>
- Operation Enduring Families, free, online family education curriculum for OIF/OEF families www.ouhsc.edu/oef

Resources: Family and Children

- Resources for Military Children Affected by Deployment
<http://old.armymwr.com/cys-images/Deployment%20A%20Compendium%20of%20Resources.pdf>
- Sesame Workshop Talk, Listen, Connect
<http://archive.sesameworkshop.org/tlc>
- Seeds of Hope Books offers materials for teenagers in military families <http://www.seedsofhopebooks.com>
- Zero To Three: Coming Together Around Military Families® (CTAMF)
<http://www.zerotothree.org/about-us/funded-projects/military-families/>
- This Emotional Life <http://www.pbs.org/thisemotionallife/military-families>

Thank you.
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rperou@cdc.gov

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Deployment Stages and Children's Responses

(Amen et al., 1988; Murray, 2002; Pincus et al., 2001; Stafford & Grady, 2003)

Pre-Deployment

Infants	Fussy, changes in eating habits
Preschoolers	Confused, saddened
School-Aged	Saddened, angry or anxious
Adolescents	Withdrawn, deny feelings about pending separation

Deployment

Infants	No research
Preschoolers	Sadness, tantrums, changes in eating/elimination habits, symptoms of separation anxiety may appear
School-Aged	Increased somatic complaints, mood changes, decline in school performance
Adolescents	Angry, aloof, apathetic, acting out behaviors may increase, loss of interest in normal activities, decline in school performance

Post-Deployment

Infants	May not recognize returning service member and be fearful
Preschoolers	Happy and excited, but also experience anger at separation
School-Aged	Happy and angry, often leading to acting out behaviors
Adolescents	Defiant, disappointed if their contributions at home are not acknowledged

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coca@cdc.gov

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shiga toxin-producing escherichia coli

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Emergency Preparedness and Response

Emergency Preparedness & Response

Specific Hazards

Preparedness for All Hazards

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What You Can Do

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